### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

## (19) World Intellectual Property Organization

International Bureau



# 

#### (43) International Publication Date 4 March 2004 (04.03.2004)

**PCT** 

# (10) International Publication Number WO 2004/018291 A1

- (51) International Patent Classification<sup>7</sup>: G01W 1/14
- B64D 15/20,
- (21) International Application Number:

PCT/DK2003/000556

- (22) International Filing Date: 26 August 2003 (26.08.2003)
- (25) Filing Language:

Danish

(26) Publication Language:

English

(30) Priority Data:

PA 2002 01252

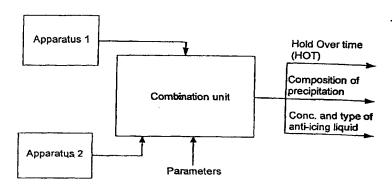
26 August 2002 (26.08.2002) DK

- (71) Applicant (for all designated States except US): DALS-GAARD NIELSEN APS [DK/DK]; Holmevej 35, DK-9640 Farsø (DK).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): NIELSEN, Evan [DK/DK]; Holmevej 35, DK-9640 Farsø (DK).

- (74) Agent: ZACCO DENMARK A/S; Hans Bekkevolds Allé 7, DK-2900 Hellerup (DK).
- (81) Designated States (national): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT (utility model), PT, RO, RU, SC, SD, SE, SG, SK (utility model), SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,

[Continued on next page]

(54) Title: A METHOD OF DETERMINING THE RISK OF ICE DEPOSITION DUE TO PRECIPITATION AND APPARATUS FOR EXERCISING THE METHOD



(57) Abstract: The invention relates to a method and an apparatus for determining the risk of ice deposition due to precipitation. According to the invention the measurements of precipitation known so far are combined with measurements of the actual amount of ice deposited from the precipitation. Said measurements are combined in a combination unit that is able to receive further parameter information, eg the amount and type of anti-icing liquid. Compared to previously a considerably more reliable determination of the risk of ice deposition is accomplished, eg on the wing of an acroplane applied with anti-icing liquid, and so is reliable determination of the holdover time, HOT, during which one can be sure that the aeroplane is free from ice in the current weather conditions.

